

Serial No. 09/938,443

Amendments to the Claims

Claim 1 (Previously presented): A computer implemented method for remotely configuring a Virtual Private Network (VPN) between a client-side system and a server-side system, comprising:

receiving data at a service provider system indicative of a selected server-side system and a selected client-side system between which a VPN is to be established;

automatically determining security settings at the service provider system for said client-side system based at least partially on said data; and

automatically transmitting VPN configuration details from the service provider system to a modem of said client-side system, where said VPN configuration details include said security settings,

such that in use said modem of said client-side system is automatically configured with said VPN configuration details to establish a secure VPN tunnel between said client-side system and said server-side system.

Claim 2 (Original): The computer implemented method of claim 1, wherein said receiving comprises obtaining said data indicative of a selected server in said server-side system and a selected user of said client-side system from a system administrator, via an electronic network.

Claim 3 (Original): The computer implemented method of claim 1, wherein said determining comprises creating a public and private key.

Claim 4 (Original): The computer implemented method of claim 1, wherein said determining comprises establishing a Digital Certificate.

Serial No. 09/938,443

Claim 5 (Original): The computer implemented method of claim 1, further comprising:

automatically ascertaining further security settings for said server-side system;

automatically transmitting VPN configuration details to a concentrator within said server-side system, where said VPN configuration details include said further security settings.

Claim 6 (Original): The computer implemented method of claim 1, further comprising:

automatically ascertaining further security settings for said server-side system; and

automatically transmitting VPN configuration details to a firewall within said server-side system, where said VPN configuration details include said further security settings.

Claim 7 (Previously presented): The computer implemented method of claim 1, wherein said transmitting comprises communicating said VPN configuration details to said modem within said client-side system.

Claim 8 (Previously presented): The computer implemented method of claim 1, wherein said transmitting comprises communicating said VPN configuration details to a firewall on said modem within said client-side system.

Claim 9 (Previously presented): The computer implemented method of claim 1, further comprising the step, after said determining step, of: storing said data indicative of a selected server-side system and a selected client-side system between which a VPN is to be established and said security settings.

Serial No. 09/938,443

Claim 10 (Previously presented): The computer implemented method of claim 1, further comprising the steps, after said automatically transmitting step, of:
receiving a password from said client-side system; and
authenticating said password.

Claim 11 (Original): The computer implemented method of claim 1, further comprising:
establishing a Virtual Private Network tunnel between said client-side system and said server-side system; and
verifying that said tunnel is operational.

Claim 12 (Previously presented): The computer implemented method of claim 1, further comprising configuring a login page on said modem within said client-side system.

Claim 13 (Previously presented): A computer program product for use in conjunction with a computer system for remotely configuring a Virtual Private Network (VPN) between a client-side system and a server-side system, the computer program product comprising a computer readable storage and a computer program stored therein, the computer program comprising:

instructions for receiving data at a service provider system indicative of a selected server-side system and a selected client-side system between which a VPN is to be established;

instructions for automatically determining security settings for a modem of said client-side system based at least partially on said data; and

instructions for automatically transmitting VPN configuration details from said service provider system to said modem of said client-side system, where said VPN configuration details include said security settings, such that in use said modem of said client-side system is automatically configured with said VPN configuration details.

Serial No. 09/938,443

Claim 14 (Original): The computer program product of claim 13, wherein said instructions for receiving further comprise instructions for obtaining said data indicative of a selected server in said server-side system and a selected user of said client-side system from a system administrator, via an electronic network.

Claim 15 (Original): The computer program product of claim 13, wherein said instructions for determining further comprise instructions for creating a public and private key.

Claim 16 (Original): The computer program product of claim 13, wherein said instructions for determining further comprise instructions for establishing a Digital Certificate.

Claim 17 (Original): The computer program product of claim 13, wherein said computer program further comprises:

instructions for automatically ascertaining further security settings for said server-side system; and

instructions for automatically transmitting VPN configuration details to a concentrator within said server-side system, where said VPN configuration details include said further security settings.

Serial No. 09/938,443

Claim 18 (Original): A computer implemented method for remotely configuring a Virtual Private Network (VPN) between a client-side system and a server-side system, comprising:

receiving at a modem within said client-side system, VPN configuration details from a service provider system, where said VPN configuration details include security settings for establishing a VPN with a remote server-side system; and
automatically configuring said modem, with said VPN configuration details,

such that in use a secure VPN tunnel can be established between said client-side system and said server-side system.

Claim 19 (Original): The computer implemented method of claim 18, wherein said configuring further comprises setting-up a firewall on said modem with said modem with said security settings.

Claim 20 (Original): The computer implemented method of claim 18, further comprising:

receiving a password from said client-side system; and
authenticating said password.

Claim 21 (Original): The computer implemented method of claim 20, wherein said authenticating comprises:

sending said password to an authentication server within said server-side system;
receiving authentication from said authentication server.

Serial No. 09/938,443.

Claim 22 (Original): A remotely configurable Virtual Private Network (VPN) comprising:

a client-side network comprising:

a modem that communicates with the internet; and

at least one client computer electrically coupled to said modem;

a server-side network comprising:

a VPN concentrator that communicates with the internet; and

at least one server electrically coupled to said VPN concentrator;

and

a service provider network comprising:

a security generator for automatically determining security settings used to secure VPN communication between said client computer and said server;

a VPN synchronizer for automatically configuring said modem with said security settings; and

a modem synchronizer for automatically configuring said modem with said security settings.

Claim 23 (Original): The remotely configurable Virtual Private Network (VPN) of claim 22, wherein said modem is a DSL (Digital Subscriber Line) modem.

Claim 24 (Currently Amended): The remotely configurable Virtual Private Network (VPN) of claim ~~[[18]]~~ 22, wherein said server-side network further comprises:

a router configured to electrically couple to the internet;

a firewall electrically coupled to said router;

an authentication server for authenticating a user of said client computer;

a file server;

a proxy server; and

a DNS (Domain Name System) server.

Serial No. 09/938,443

Claim 25 (Original): The remotely configurable Virtual Private Network (VPN) of claim 22, wherein said server-side network further comprises an authentication server for authenticating a user of said client computer.

Claim 26 (Original): The remotely configurable Virtual Private Network (VPN) of claim 22, wherein said service provider network further comprises:

- a VPN provider;
- a DNS (Domain Name System) server, and
- an HTTP server.

Claim 27 (Original): The remotely configurable Virtual Private Network (VPN) of claim 22, wherein said security generator is a PKI (Public Key Infrastructure) Synchronizer.